

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claims 1 (Currently amended): A pharmaceutical composition comprising an amount of a purified molecular complex effective for treatment or prevention of cancer or a tumor, and a pharmaceutically acceptable carrier, said molecular complex comprising an alpha (2) macroglobulin polypeptide noncovalently associated with an antigenic molecule which displays the antigenicity of an antigen overexpressed in a cancer cell relative to its expression in a noncancerous cell of said cell type, with the proviso that the antigenic molecule is other than prostate-specific antigen, of a tumor-specific antigen wherein the alpha (2) macroglobulin polypeptide comprises the alpha (2) macroglobulin receptor binding domain.

Claims 2-3 (Cancelled)

Claim 4 (Reinstated): The pharmaceutical composition of Claim 1 wherein the antigenic molecule is a tumor specific antigen or a tumor-associated antigen.

Claim 6 (Cancelled)

Claim 7 (Currently amended): A purified molecular complex comprising an alpha (2) macroglobulin polypeptide noncovalently associated with an antigenic molecule which displays the antigenicity of an antigen overexpressed in a cancer cell relative to its expression in a noncancerous cell of said cell type, with the proviso that the antigenic molecule is other than prostate-specific antigen, of a tumor-specific antigen, wherein the alpha (2) macroglobulin polypeptide comprises the alpha (2) macroglobulin receptor binding domain,

Claim 8 (Currently amended): A purified population of molecular complexes in which at least 65% of said complexes comprise an alpha (2) macroglobulin polypeptide, comprising the alpha (2) macroglobulin receptor binding domain, said polypeptide noncovalently associated with an antigenic molecule which displays the antigenicity of an antigen overexpressed in a cancer cell relative to its expression in a noncancerous cell of said

cell type of a tumor-specific antigen, with the proviso that the antigenic molecule is other than prostate-specific antigen.

Claim 9 (Original): A purified population of molecular complexes purified from a recombinant cell in which at least 65% of said complexes comprise an alpha (2) macroglobulin noncovalently associated with an antigenic molecule.

Claim 10-39 (Cancelled)

Claim 40 (Previously added): The purified molecular complex of Claim 7 wherein the alpha (2) macroglobulin polypeptide and/or the antigenic molecule are chemically synthesized or recombinantly produced.

Claim 41 (Cancelled)

Claim 42 (Previously amended): The pharmaceutical composition of Claim 1 comprising an amount of a purified molecular complex effective for treatment or prevention of a fibrosarcoma, myxosarcoma, liposarcoma, chondrosarcoma, osteogenic sarcoma, chordoma, angiosarcoma, endotheliosarcoma, lymphangiosarcoma, lymphangioendotheliosarcoma, synovioma, mesothelioma, Ewing's tumor, leiomyosarcoma, rhabdomyosarcoma, colon carcinoma, pancreatic cancer, breast cancer, ovarian cancer, prostate cancer, squamous cell carcinoma, basal cell carcinoma, adenocarcinoma, sweat gland carcinoma, sebaceous gland carcinoma, papillary carcinoma, papillary adenocarcinomas, cystadenocarcinoma, medullary carcinoma, bronchogenic carcinoma, renal cell carcinoma, hepatoma, bile duct carcinoma, choriocarcinoma, seminoma, embryonal carcinoma, Wilms' tumor, cervical cancer, testicular tumor, lung carcinoma, small cell lung carcinoma, bladder carcinoma, epithelial carcinoma, glioma, astrocytoma, medulloblastoma, craniopharyngioma, ependymoma, pinealoma, hemangioblastoma, acoustic neuroma, oligodendroglioma, meningioma, melanoma, neuroblastoma, retinoblastoma, acute lymphocytic leukemia, myeloblastic, promyelocytic, myelomonocytic, monocytic, erythroleukemia, chronic myelocytic, leukemia, chronic lymphocytic leukemia, polycythemia vera, Hodgkin's disease lymphoma, non-Hodgkin's disease lymphoma, multiple myeloma, Waldenström's macroglobulinemia, or heavy chain disease.

Claim 43 (Previously added): A pharmaceutical composition comprising an amount of a purified molecular complex effective for treatment or prevention of an infectious disease and a pharmaceutically acceptable carrier, said molecular complex comprising an alpha (2) macroglobulin polypeptide comprising the alpha (2) macroglobulin receptor binding domain, said polypeptide noncovalently associated with an antigenic molecule which displays the antigenicity of an antigen of an infectious agent of the infectious disease.

Claim 44 (Previously added): A purified molecular complex comprising an alpha (2) macroglobulin polypeptide, comprising the alpha (2) macroglobulin receptor binding domain, said polypeptide noncovalently associated with an antigenic molecule of an infectious agent of the infectious disease.

Claim 45 (Previously added): The purified molecular complex of Claim 44 wherein the antigenic molecule displays the antigenicity of an antigen of an infectious agent of the infectious disease.

Claim 46 (Previously added): The pharmaceutical composition of Claim 43 comprising an amount of a purified molecular complex effective for treatment or prevention of an infectious disease, wherein the infectious disease is caused by a pathogen of hepatitis type B virus, adeno-associated virus, cytomegalovirus, papilloma virus, polyoma viruses, SV40, herpes simplex type I (HSV-I), herpes simplex type II (HSV-II), Epstein-Barr virus, variola (smallpox), vaccinia virus, human immunodeficiency virus type I (HIV-I), human immunodeficiency virus type II (HIV-II), human T-cell lymphotropic virus type I (HTLV-I), human T-cell lymphotropic virus type II (HTLV-II), influenza virus, measles virus, rabies virus, Sendai virus, poliomyelitis virus, coxsackieviruses, rhinoviruses, reoviruses, rubella virus (German measles) Semliki forest virus, arboviruses, hepatitis type A virus, *Streptococcus pyogenes*, *Streptococcus pneumoniae*, *Neisseria gonorrhoea*, *Neisseria meningitidis*, *Corynebacterium diphtheriae*, *Clostridium botulinum*, *Clostridium perfringens*, *Clostridium tetani*, *Haemophilus influenzae*, *Klebsiella pneumoniae*, *Klebsiella ozaenae*, *Klebsiella rhinoscleromatis*, *Staphylococcus aureus*, *Vibrio cholerae*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Campylobacter* (*Vibrio*) *fetus*, *Campylobacter jejuni*, *Aeromonas hydrophila*, *Bacillus cereus*, *Edwardsiella tarda*, *Yersinia enterocolitica*, *Yersinia pestis*, *Yersinia pseudotuberculosis*, *Shigella dysenteriae*, *Shigella flexneri*, *Shigella sonnei*,

*Salmonella typhiimurium, Salmonella typhii, Treponema pallidum, Treponema pertenue, Treponema carateneum, Borrelia vincentii, Borrelia burgdorferi, Leptospira icterohemorrhagiae, Mycobacterium tuberculosis, Toxoplasma gondii, Pneumocystis carinii, Francisella tularensis, Brucella abortus, Brucella suis, Brucella melitensis, Mycoplasma spp., Rickettsia prowazeki, Rickettsia tsutsugumushi, Chlamydia spp., Helicobacter pylori, Entamoeba histolytica, Trichomonas tenax, Trichomonas hominis, Trichomonas vaginalis, Trypanosoma gambiense, Trypanosoma rhodesiense, Trypanosoma cruzi, Leishmania donovani, Leishmania tropica, Leishmania braziliensis, Pneumocystis pneumonia, Plasmodium vivax, Plasmodium falciparum, or Plasmodium malaria.*

Claim 47 (Previously added): A purified population of molecular complexes in which at least 65% of said complexes comprise an alpha (2) macroglobulin polypeptide comprising the alpha (2) macroglobulin receptor binding domain, said polypeptide noncovalently associated with an antigenic molecule that displays the antigenicity of an antigen of an infectious agent of the infectious disease.

Claim 48 (Previously added): The pharmaceutical composition of claim 1 or 43, further comprising one or more adjuvants.

Claim 49 (Previously added): The pharmaceutical composition of claim 48, wherein the adjuvant is aluminum hydroxide, aluminum phosphate, calcium phosphate, lysolecithin, pluronic polyols, polyanions, peptides, oil emulsions, keyhole limpet hemocyanins, and dinitrophenol, cytokines, saponins, muramyl dipeptides, tripeptide derivatives, CpG dinucleotides, CpG oligonucleotides, monophosphoryl Lipid A, polyphosphazenes, emulsions, liposomes, virosomes, cochleates, Freund's complete adjuvant, Freund's incomplete adjuvant, bacille Calmette-Guerin, or corynebacterium parvum.